

**REMARKS**

This Response, filed in reply to the Office Action dated June 24, 2008, and the Advisory Action dated September 30, 2008, is believed to be fully responsive. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-10 are rejected. Claims 11-20 are withdrawn from consideration as being directed to non-elected inventions. Consideration of the remarks herein is respectfully requested.

**Withdrawn Rejections**

Applicants thank the Examiner for acknowledging in the Advisory Action mailed September 30, 2008, that Applicants' arguments submitted June 24, 2008, have overcome the rejection of Claims 1, 2, 5, 8 and 9 under 35 U.S.C. § 102(b) over Ohno (*Process Biochemistry*, 1996, Vol. 31, 8:801-806; "Ohno#1") and the rejection of Claims 1-3 and 5-9 under 35 U.S.C. § 102(b) over Ohno#1 in view of Ohno (*J. Fermentation and Bioengineering*, 1995, Vol. 80, 5:517-519; Ohno#2), and hence that these rejections have been withdrawn.

**Claims 1-10 are Patentable under 35 U.S.C. §103(a)**

On page 4 of the Office Action mailed June 24, 2008, Claims 1-10 are rejected under 35 U.S.C. 103(a) as being obvious over Ohno#1 in view of Ohno#2 and Ohno *et al.* (*Biotechnology Letters*, 1992, Vol. 14, 9:817-822; "Ohno#3"). In making the rejection, the Examiner expressly indicates that Claims 1, 2, 5, 8 and 9 are rejected *for the same reasons* as set forth in the rejection of Claims 1, 2, 5, 8 and 9 under 35 U.S.C. § 102(b) over Ohno#1.

Regarding Claim 3, the Examiner asserts that Ohno#1 do not disclose how much, if any, surfactin is produced by *B. subtilis* NB22. However, the Examiner takes the position that given the similarity between the instant strains, and those of the cited references, the recited characteristic is presumed to be inherent in the prior art strains.

Regarding Claims 6 and 7, the Examiner asserts that Ohno #1 only disclose the use of *Bacillus subtilis* NB22 to ferment and obtain iturin A, or its homologues, from a soybean extract, and Ohno #1 does not disclose use of *Bacillus subtilis* SD142, or a mutant thereof. However, the Examiner takes the position that as the strains of the prior art have the same species and genus classification as the instant strain, and share the property of being able to produce iturin A, and its homologues, the strains are essentially the same, absent evidence to the contrary.

Further, in the Advisory Action mailed September 30, 2008, the Examiner states that while Applicants' arguments submitted September 8, 2008, have overcome the rejection of Claims 1-3 and 5-9 under 35 U.S.C. § 102(b), the arguments are not sufficient to overcome the rejection of these claims in the alternative under 35 U.S.C. 103(a). Specifically, the Examiner contends that although Applicants argued that the method of Ohno #1 is directed to solid-state fermentation, using solid medium, the term "liquid medium" is ambiguous. The Examiner takes the position that because the claim recites "a liquid medium containing 2% mass or more of soybean powder or its extract," the claim does not provide an upper limit to the amount of soybean powder or extract.

Applicants respectfully disagree with the maintenance of the rejection under section 103(a), and traverse, respectfully, on the following grounds.

As an initial matter, Applicants note that in the Response filed September 8, 2008, the rejection of Claims 1-3 and 5-9 under 35 U.S.C. § 102(b) was traversed on the ground that the Ohno#1 reference fails to teach each and every element of the claims. Specifically, Applicants noted that the Ohno#1 reference only discloses solid-state fermentation (SSF), and therefore cannot disclose cultivating an iturin A-producing *Bacillus* strain in a liquid medium, or iturin A production in a liquid medium. By indicating that Applicants' arguments were persuasive in this regard, and withdrawing the rejection of Claims 1, 2, 5, 8 and 9 under 35 U.S.C. § 102(b), the Examiner thus acknowledges that (1) Ohno#1 does not teach cultivating an iturin A-producing *Bacillus* strain in a liquid medium, or iturin A production in a liquid medium, and (2) Ohno#1 fails to teach each and every element of Claims 1-3 and 5-9.

Notably, the Examiner indicates on page 4 of the Office Action that the rejection of Claims 1, 2, 5, 8 and 9 in the alternative under section 103(a) is duplicative of the rejection under section 102(b), by stating that "the description and rejection of claims 1, 2, 5, 8 and 9 [under section 103(a)] are listed in the 35 U.S.C. §102(b) rejection above." Because Ohno#1 is deficient as discussed above, maintaining the rejection under section 103(a) is clearly improper, particularly since the addition of Ohno#2 and Ohno#3 does not rectify the deficiencies of Ohno#1, that is, like Ohno#1, neither Ohno#2 nor Ohno#3 discloses cultivating an iturin A-producing *Bacillus* strain in a liquid medium, or iturin A production in a liquid medium, nor are they even relied upon to do so. Thus, in the context of anticipation or obviousness, the cited references, taken alone or in combination, do not teach each and every element of the claims. Accordingly, the rejection under 35 U.S.C. §103(a) should also be withdrawn.

The Examiner appears to justify maintaining the obviousness rejection of Claims 1, 2, 5, 8 and 9 on the ground that the language of Claim 1 is properly construed to encompass media containing greater than 2% soybean extract even to the extent that solid media are encompassed (*i.e.*, okara). The Examiner's contradictory position regarding the rejections under sections 102 and 103 notwithstanding, Applicants note that such an interpretation is entirely improper as it requires ignoring a claim limitation (*i.e.*, that the *Bacillus* microbe is cultivated in a liquid medium). Pursuant to M.P.E.P. § 2143.03, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." Contrary to that asserted in the rejection, given the plain and ordinary meaning of the term "liquid," and the teachings of the cited references that okara is a "solid-state" medium, one of ordinary skill in the art would in no way understand okara to be a liquid. Applicants respectfully remind the Examiner that the "broadest reasonable interpretation" of a claim must also be consistent with the interpretation that those skilled in the art would reach, not simply the broadest interpretation possible. See *In re Cortright*, 165 F.3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999).

While it is difficult to reconcile the contradiction in the Examiner's position regarding the withdrawal of the anticipation rejection in view of Applicants' arguments asserting that Ohno #1 do not disclose iturin A production in a liquid medium, while at the same time, maintaining the obviousness rejection on the ground that okara falls within the scope of a liquid medium containing 2% mass or more of soybean powder or its extract, Applicants again point out that, as acknowledged by the Examiner, Ohno#1 simply does not disclose cultivating an iturin A-producing *Bacillus* strain in a liquid medium, or iturin A production in a liquid medium, and

neither does Ohno#2 or Ohno#3. Thus, a *prima facie* case of obviousness has not been established because the cited references do not teach each and every element of the claims.

Applicants respectfully request that the rejection be withdrawn and finality of the application withdrawn as premature.

### Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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CUSTOMER NUMBER

Date: December 8, 2008